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ABSTRACT

An evaluation of an undergraduate interdisciplinary team-taught course entitled "Technological Culture and the Human Prospect" is presented. The pilot course attempts to deal with (1) the need for curricular innovation, (2) the need for faculty development, (3) the need to build flexible curricula with greater sensitivity for student motivation and student perceptions of subject matter relevance, and (4) the need to bridge the "two cultures" problem of C.P. Snow. The effects of the project (development and execution of the course) upon the Jesuit institution, faculty, and students are examined and found to be very positive. The appendix contains: descriptions and copies of the student appraisal questionnaire and the faculty appraisal questionnaire, a copy of the student's project contract sheet, and copies of three essay examinations used in the course. (SPG)

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THE UNIVERSITY OF SAN FRANCISCO

School of Education

TECHNOLOGICAL CULTURE AND THE HUMAN PROSPECT: AN EVALUATION OF A NEW UNDERGRADUATE INTERDISCIPLINARY TEAM-TAUGHT COURSE

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San Francisco, California 94117

June 26, 1978

The National Endowment for the Humanities

Division of Education Programs

Washington, D.C., 20506

Institution:

The University of San Francisco

Project Director:

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Project Evaluator:

James Steve Counelis, Ph.D.

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PREFACE

For most, I believe, a new undertaking is an adventure. At least, this is true for me. But each adventure has its own plot line; and in retrospect, the plot line rarely is straight. I suppose the adventurous becomes so because the future is ambiguous and filled with contingencies that curl the road. These "curls in the road" are those unexpected instances or situations which call forth an exhilaration that is the essential character of adventure. Intellectual adventures have these exhilarations. Doing this evaluation of an innovative undergraduate course has been an adventure for precisely the reasons suggested here. I have learned much from this opportunity; and it is my hope that others in the project have had as good a time as I.

I am grateful to the faculty and students in this project. They made my task a happier one by their cooperation and good humor. And I am most appreciative of the opportunity to do this evaluation through the invitation of Dr. Carolyn M. Iltis, project director. Dr. Iltis' leadership and personally warm spirit permeated the whole project. I am grateful to Dr. Iltis for her encouraging support.

Also, I am pleased to acknowledge my indebtedness to two young professionals. I am grateful to Mr.Marshall E. Drummond for his high competence in computer science that made possible the statistical results of this paper. Mr. Drummond, always inventively helpful and generous, is much admired by me. And to Ms.Veronica Marinaro, I am pleased to note her professional typing services which are of the highest order. Her personal pride in the manuscripts she has typed for me is only excelled by the cheerfulness with which she approaches each task. Thank you, Veronica!

And to my family---Anna, Steven and George---I am always grateful for their affection. They liven my existence, making my life a joy.

As is appropriate, this writer is responsible for the contents of this evaluative report.

---James Steve Counelis

The University of San Francisco,
San Francisco, California 94117
June 26, 1978

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TECHNOLOGICAL CULTURE AND THE HUMAN PROSPECT: AN EVALUATION OF A NEW UNDERGRADUATE INTERDISCIPLINARY TEAM-TAUGHT COURSE

by

James Steve Counelis+

Framework:

Criticisms of American higher education over the last decade and a half have sifted down to several continuing needs of importance for undergraduate, graduate and professional education. Among these are the following: (1) the need for curricular innovation; (2) the need for faculty development; (3) the need to build flexible curricula with greater sensitivity for student motivation and student perceptions of subject matter relevance, somehow defined; (4) the need to bridge the "two cultures" problem of C. P. Snow. [Snow, 1961] Whatever the merits and shortcomings of American higher education today, a positive response to meet these needs is the responsible way to act.

The pilot grant, titled, "Technological Culture and the Human Prospect," [Grant No. EP 25821-76-1126---January 1, 1977 to March 31, 1978] is an attempt to meet in a responsive and responsible way all four of these national needs noted above. This was being done within the Credo and educational philosophy of the University of San Francisco, a private, Roman Catholic and Jesuit institution.

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A review of the pilot project's grant proposal reveals a human capital investment strategy. However, this strategy is not often understood and appreciated by government and turmoiled institutions, regardless of level. Though there is a continuing controversy over the economic definition and interpretation of "human capital investment," the commonsense of the matter still makes the concept singularly persuasive. In this commonsense understanding, human capital investment refers to all human learning achieved, used and directed to personally and socially useful ends. Howard R. Bowen and his colleagues currently have put flesh and sinew on the bones of this commonsense notion. [Bowen, et.al., 1977]

There are three human capitalization strategies in this pilot project. Given the thematic orientation of "Technological Culture and the Human Prospect," the first strategy is the faculty seminar. This seminar was designed to plan and put into operation an undergraduate, interdisciplinary, team-taught course on this theme. This faculty seminar is a human capital investment strategy because it intends the faculty to teach each other and to learn from each other, given their several primary areas of disciplinary expertise. New knowledge, new perspectives, new values, new sensitivities and new skills were to be learned through the seminar in a true intellectual exchange. Thereby, the university's capital stock in faculty was raised significantly.

The second human capital investment strategy is an investment in a new and innovative course for the university. The capital costs for course development and mounting it are certainly large. In this case the National Endownment for the Humanities funded at $47,348; and the contributions of the University of San Francisco was $15,237. The university

curriculum was enriched by this thematic interdisciplinary course. It is by such distinctive and innovative courses that American private higher education maintains its presence as an alternative to public higher education.

The third human capital investment strategy is the actual operation of the new course for undergraduate students to take. This operational phase is human capital development because the enrolled students are acquiring new knowledges, percepts, sensitivities, and skills through their active tuition therein.

All three of these human capital investment strategies require evaluation, viz., an appraisal of the degree of achievement attained by the pilot project as a whole. And though the project proposal is not written in human capital investment terms, the character of the grant squarely documents the labor-intensive character of education as the human capital development process.

Throughout this evaluation, the interconnection of this report to the several national needs of higher educational will be documented. The enrichment of the undergraduate curriculum of the University of San Francisco by this thematic interdisciplinary, team-taught course is truly a human capital gift from the nation to the University, one that has multiplier effects for region, state and nation.

Evaluation Overview:

Always, it is wise to include an evaluator within any project from its inception so that guidance is available through the whole life of the project. In the case of this Human Prospect course, this evaluator was

privileged to have been consulted during the proposal writing period on through the end of the funding.

The duty of this evaluator to the project director and faculty was exercised in a positive manner such that their educational intentions could become observable realities to themselves, their student clients, and to others. The duty of this evaluator to the University of San Francisco and the Endowment for the Humanities is to provide a summary assessment of the project's achievements and shortcomings in terms of intended goals and unintended side effects. Also, the evaluator will enclose his recommendations for improvement because the course will be taught again.

There are three classes of intended goals, viz., project effects upon institution, faculty and students. This evaluator will address himself to these explicitly.

Project Effects:

The educational aims of the Univesity of San Francisco are set forth in the Jesuit Credo framework on page 21 of the USF General Catalogue: 1976/1978. The following aims of the university are those which are reflected in the pilot undergraduate course, titled, "Technological Culture and the Human Prospect": (1) to train the mind to analyze rather than memorize so as to distinguish between truth and error; (2) to instill culture; (3) to maintain high academic standards; (4) to encourage research; (5) to present the technical phases of various fields of education, yet integrate and make vital education; (6) to present the current and complex problems of modern life and to assist youth to solve these problems with principles as eternal as the God who pomulgated them---the etern-

ally vital principles of truth and justice; (7) to instill into youth the neglected doctrine that morality must govern economics and politics and that modern ills cannot be cured merely by shifting economic systems and changing political structures. These aims are reflected in the several course elements of this undergraduate course, viz., the prepared lectures of the faculty, the students' examinations, the discussion and tutorial sessions as indicated by the student comments on the formal course appraisal, and in the completed student projects.

Did this experimental team-taught course meet the goals of the University's Core Curriculum? Indeed! The University's Faculty Undergraduate Curriculum and Program Committee recommended to the Vice President for Academic Affairs that the course be recognized and included among the courses that fulfilled the Core Curriculum requirement for the baccalaureate degree in two areas: (1) Area IA: Human Civilization; (2) Area IIIA: Science and Technology. Further evidence of the acceptance and integration of this course within the University's undergraduate curriculum is the fact that each of the seven project sections was applicable toward the satisfaction of departmental requirements for baccalaureate degrees by student petition.

The Human Prospect course was assigned two course numbers: (1) Natural Science 15; (2) Interdisciplinary 15. The student chose the designation and number which best fitted his program. In parallel, the project sections took on either course designation. Existing scheduling and registration practices of the University Registrar were used. The course appeared in the Registrar's schedule of classes with the appropriate computer line numbers, course values and project sections for each

course. According to the final grading sheet for the lecture course, some 27 students completed the course, though there was a computer discrepancy of two students with reference to the Registrar's confirmed grade list.

In Dr. Carolyn M. Iltis' (Project Director) final report, she indicates that the faculty did have a meeting on the future of this course. [Iltis, 1978] She noted that three out of the eight faculty members were to be on leave during some part of next year. Thus the course may not be offered in Fall 1978. This evaluator's conversations with the faculty convinces him that the course will probably be given sometime next academic year because of the stimulating success it had become for both faculty and students. [Iltis, 1978]

This evaluator believes that there is persuasive evidence that the institutional objectives set within the grant proposal for this pilot course project have been fulfilled. The last two areas of project effects concerned with those related to the faculty and students, which effects are inseparably interrelated.

Eight faculty from the Colleges of Liberal Arts and Science participated in this team-taught interdisciplinary enterprise. And all eight participated in the evaluation of the NEH Faculty Seminar portion of the project.

The grant proposal notes four objectives, the first two of which are the burden of this question: "Did the NEH Faculty Seminar stimulate intellectual development and interdisciplinary education for the participating faculty?" A faculty self-report instrument, titled, Faculty Appraisal, provides the substance of the reply to both elements in this question. Faculty Appraisal Items Nos. 3-11 (Hereafter abbreviated FAI Nos. 3-11) will

be used. Each of these items consisted of a statement which the faculty rated on a six point scale, viz., (1) 5 = Most Descriptive of My View; (2) 3 = Moderately Descriptive of My View; (3) 1 = Least Descriptive of My View; (4) 0 = No Knowledge of Experience. A calculated median ($\hat{m}$) will be the statistic used here because the mean ($\bar{m}$) is a deceptive statistic for so few respondants. See Chart No. 1 for a summary of the variables.

[Insert Chart No. 1 here.]

A review of Chart No. 1 reveals that the faculty derived a very positive experience from the NEH Faculty Seminar. They learned new principles, concepts and facts. They experienced new perceptions and acquired new appreciations and sensitivities. Further, the faculty felt that the Seminar began to affect their personal values, their own disciplinary orientations, their own disciplinary courses' content and organization, along with some probable altering of instructional style. The Seminar was not designed to learn psychomotor skills; and the faculty reported the same. Additionally, a review of the written lectures certainly documents the presence of cognitive interdisciplinary materials, perhaps learned through this Seminar. Faculty evidence appears to give positive documentation to the assertion that the NEH Faculty Seminar did stimulate intellectual development together with interdisciplinary education for all participants. This evaluator accepts this understanding of the evidence.

The third explicit project goal for the faculty was to plan and present a coherent team-taught lecture course. Information on the coher-

CHART NO. 1: EFFECTS OF NEH FACULTY SEMINAR UPON FACULTY PARTICIPANTS

ITEM NUMBER	FACULTY APPRAISAL ITEMS	8 CASES		
		$\hat{m}$ *	$\bar{m}$	s.d.
3	Through participation in the NEH Faculty Seminar, I have learned new principles, new concepts, and/or new facts.	5.3	4.6	.2
4	Through participation in the NEH Faculty Seminar, I have experienced new perceptions.	5.3	4.8	.3
5	Through participation in the NEH Faculty Seminar, I have acquired new appreciations and sensitivites.	5.3	4.6	.3
6	Through participation in the NEH Faculty Seminar, I have discovered and understood new values.	4.0	3.9	.4
7	Through participation in the NEH Faculty Seminar, I have acquired at least one new psychomotor skill.	.8	2.3	1.3
8	My experiences in the NEH Faculty Seminars have begun to affect some of my personal values.	3.0	2.9	.5
9	My experiences in the NEH Faculty Seminar have begun to affect some of my own disciplinary or academic orientations.	3.5	3.3	.5
10	My experiences in the NEH Faculty Seminar will probably affect the content and/or organization of my own disciplinary courses.	4.4	3.3	.2
11	My experiences in the NEH Faculty Seminar will probably affect my style of instruction.	3.7	3.1	.4

*The medians in this and following tables were calculated from the frequency distributions involved. For the formula used, see: Frederick B. Davis, Educational Measurements and their Interpretation (Belmont, Ca.: Wadsworth Publishing Company, 1964), pp. 320-321.

ence exhibited by the course is found in the following sources: (1) the written lectures; [Iltis, 1978] (2) the students' examinations; [Appendix](3) the faculty's comments; (4) the students' experience in the course.

A review of the lectures and examinations reveals a significant effort by the faculty to develop thematic and logical coherence among the diverse topics treated. Course coherence was achieved through several devices other than through the theme itself and the time dimension of past, present, and future. Because of the multifactorial nature of the theme itself, one device was to construct a "factor" notion (e.g., cultural, biological, technological, psychological, ideological factors) which notion clusters certain causitive facts. Then the individual factor is somehow related to the person. Hence, the formal argument runs: Result (R) is a function of the causitive intersect of factor (F) and person (P) --- $R = f(F \cap P)$. An illustration of this argument is found in the following examination question: " 'Science and technology have influenced art and architectural styles in varied and beautiful ways, increased literacy, knowledge and information for millions, and raised standards and efficiency in many areas of the world.' Illustrate and critically evaluate this statement." The factors (F) are "science" and "technology" and the effects upon persons (P) to be explained are "beautiful art and architecture," "increased literacy, knowledge and information," and "raised standards and efficiency." Substantive and formal coherence are thus obtained.

A second device that was used to enhance coherence in the course lies in the notion of discrepancy analysis. This device consists in positing two temporally separated historical situations which analogically are

similar in structure and kind. The emphasis of discrepancy analysis is to contrast the situations in terms of their analogically similar elements, though the similarities are noted for purposes of balanced or reasoned presentation. The formal argument runs something like this: Result (R) is a function of the contrast between similar elements in two temporally separated situations, S_1 and S_2 where S_1 is temporally prior to S_2--- $R = f(S_2 - S_1)$. From the focus past examination, the following illustrates this model: "In what specific ways has the perception of nature changed for the ordinary beholder, the artist, and other intellectuals since the scientific revolution?" Thus S_1 is "since the scientific revolution" and S_2 is an implied "today." The notion "perception of nature" as held by ordinary beholders, artists and other intellectuals at these respective time periods is the analogically similar element that is under discrepancy analysis. Again, substantive and formal coherence is obtained.

A deterministic argument for proximate causality is the third device used to enhance course coherence. Formally, this argument runs: Result (R) is a function or a proximate action of idea (X) upon person (P) or situation (S)--- $R = f(X \rightarrow P \wedge S)$. The first question in the students' examination on focus future illustrates this model: "Analyze and assess the value of the ways in which the philosophy of holism might guide technological advances toward the maintainence of ecological balance." Here, the students' analyses and value assessments (R) are a function of holistic philosophy's (X) guidance of technological advances toward ecological balance (S). Again, substantive and formal coherence are induced.

Aside from the thematic, temporal and formal arguments inducing coherence within the "Human Prospect" course, the student experiences of

coherence can document its curricular reality. Student Appraisal Items Nos. 5-7, 10, 13, 15-16 (hereafter abbreviated SAI Nos. 5-7, 10, 13, 15-16) document this student reality of coherence.

Twenty (79.9%) out of the 26 registered students in the lecture course were present at the last day of class when the Student Appraisal instrument was administered and completed by the students. On a set of continuous variables about the nature of the course, the students were asked to use a five point scale (5 = high; 3 = moderate; 1 = low) and rate each continuous course variable. The mean ($\bar{m}$) is reported here as the most appropriate measure. See Chart No. 2.

[Insert Chart No. 2 here.]

Chart No. 2 helps to summarize the documentation of the degree of thematic and logical coherence experienced by the students in the Human Prospect course. The students found relevancy relatively high for lecture topics and the course theme, for the student project and the course theme, and for course discussions and the course theme. The student perceived and experienced a logical interconnectedness among the lectures, readings, discussions, and the student project. Also, logical clarity was detected in the several lectures; and the appropriateness of the readings to the course was demonstrated. This evidence persuades the evaluator that the faculty did in fact design and present a coherent interdisciplinary course.

A modest addendum to this conclusion is in order. When the faculty were asked if the theme, "Technological Culture and the Human Prospect,"

CHART NO. 2: STUDENT EVALUATION OF COURSE RELEVANCE, LOGIC AND CLARITY

ITEM NUMBER	STUDENT APPRAISAL ITEMS	20 CASES	
		$\bar{m}$	s.d.
13	The relevancy of lecture topics to the course's theme.	4.4	.7
16	The relevancy of the student's project topic to the course theme.	4.3	1.1
6	The degree of logical interconnection of lectures, readings, discussions, and project.	3.9	1.1
15	The relevancy of course discussions to the course theme.	3.9	.8
10	The appropriateness of the readings for this course.	3.9	1.1
5	The degree of thematic interconnection of lectures, readings, discussions, and project.	3.8	1.0
7	In general, the amount of logical clarity of the several lectures in the course.	3.7	.8

was too broad for curricular effectiveness (FAI No. 1) or too broad for curricular efficienty (FAI No. 2), their response was "no." They documented this view through the experiences which the students had and testified to from within the course. A coherent, team-taught, interdisciplinary course was achieved in theory and in practice.

The fourth project goal for the faculty was the following: to work effectively with students on an intensive semester project and to aid them in improving their writing, research and cognitive skills. See Chart No. 3 for documenting the truth about this goal's achievement.

There is little doubt that the student project was the most highly rated component of the entire Human Prospect course. Reviewing Chart No. 3, the mean score responses ranged from 3.8 to 4.5 for the variables reflecting teacher/student relations in the course. The course provided students with the highest sense of achievement, intellectual stimulation, a high amount of learning with high relevance and appropriateness to course theme. The students experienced a high faculty tolerance for a wide range of student opinions. A high degree of faculty fairness and a great amount of faculty availability for supplementary aid and instruction were experienced also.

These results are truly edifying evidence that indicate effective faculty work with the students in their intensive smester projects. Written student comments on the Student Appraisal document noted the project "tied the course together," "the project was a real core of the course," and "felt so good about the paper." Though one student expressed the opinion that the project sections were not needed and another stated the desire to select the course project sections after the lectures had begun

the high positive response of the students bespeaks of the faculty's effectiveness with the students. Also the faculty wisdom of using an intensive semester project component for this new team-taught interdisciplinary course proved to be most effective.

[Insert Chart No. 3 here.]

Did the faculty actually help the students to improve their skills in writing, research and methods of thinking? For answering this question, there are two sources: (1) the project contract with student and faculty comments; (2) certain Student Appraisal items.

During the Faculty Seminar phase, this evaluator aided the faculty in developing the "Student Project Contract Sheet." See Appendix for a copy of this document. Having provided summaries on the cognitive, affective and psychomotor domains to the faculty, the student's definitional clarity of the project with these objectives in mind was enhanced [Bloom, et.al., 1956; Krathwohl, et.al., 1964; Harrow, 1972]. The project's topic area, form, and method of achievement were delineated with further precision. These sheets contained spaces for the faculty evaluation and grade. Six out of eight faculty who had student projects wrote comments upon each project's quality, merit and suggestions for improvement. These comments included observations on writing, oral and cognitive skills, though these comments varied in character, detail and extensiveness. Expectedly, the projects varied widely: (1) papers on ethical, historical, scientific and linguistic subjects; (2) architectural models; (3) a multimedia presentation on architectural and artistic topics; (4) a

CHART NO. 3: STUDENT EVALUATION OF FACULTY EFFECTIVENESS

ITEM NUMBER	STUDENT APPRAISAL ITEMS	20 CASES $\bar{m}$	20 CASES s.d.
62	Student satisfaction with his/her achievement in terms of course project.	4.5	.8
20	The student's intellectual stimulation derived from the project.	4.4	.8
31	The amount of learning derived by the student through the course project.	4.3	.8
11	The appropriateness of the student project for this course.	4.1	1.3
49	Faculty tolerance for a wide range of student opinions.	4.1	1.5
50	Faculty fairness.	3.9	1.3
51	The availability of faculty for supplementary aid and instruction during the semester.	3.8	1.1

hooked rug; (5) annotated bibliographies; (6) a piece of sculpture; (7) visits to museums; (8) natural and architectural settings photographically recorded; (9) a journal of nature excursion relating readings and feelings to nature and theology; (10) a group laboratory construction of a cylindrical solar collector and its generation of energy. From the range of projects, it is quite evident that not all of the projects placed their emphasis upon research in the library, writing a research paper, or exercising certain cognitive skills. It is quite certain that particular affective learnings were achieved at the expense of cognitive skills, research in the library sense, and writing.

The Student Appraisal was designed to distinguish between the student's perceived opportunity to learn specific skills and the student's perceived self-improvement in those skills. SAI Nos. 33-34 and 40-47 are these paired items. See Chart No. 4.

[Insert Chart No. 4 here.]

A review of this chart indicates that cognitive skills were obviously stressed and learned. From 3.5 to 4.1, the students' perceived opportunities to learn and self-perceived improvements in certain cognitive skills are considered to be moderately high in value, viz., analytical skills, synthetic skills, and evaluational skills. The amount of improvement or learning in reading, writing, speaking, listening and observational skills was significantly lower, ranging from 2.6 to 3.3. From the students' own perception, the student recognized the effective emphasis upon the cognitive processes engendered by the faculty through the course.

CHART NO. 4: STUDENT ACQUISITION OF LEARNING SKILLS

ITEM NUMBER	STUDENT APPRAISAL ITEM	20 CASES $\bar{m}$	20 CASES s.d.
33	The student's opportunity to learn and practice writing skills.	3.3	1.3
34	The student's improvement in writing skills.	3.0	1.1
46	The opportunity for the student to learn and practice speaking skills.	3.3	1.4
47	Student improvement in speaking skills.	2.8	1.2
40	The opportunity for the student to learn and practice analytical thinking skills.	3.9	1.0
41	Student improvement in analytical thinking skills.	3.5	1.1
42	The opportunity for the student to learn and practice synthetic thinking skills.	3.9	1.0
43	Student improvement in synthetic thinking skills.	3.5	1.1
44	The opportunity for the student to learn and practice evaluative or critical thinking skills.	4.1	.8
45	Student improvement in evaluative or critical thinking skills.	3.7	1.1
24	The amount of student improvement in listening skills.	3.3	1.3
30	The student's improvement in reading skills.	2.6	1.1
32	The student's improvement in observation skills.	3.6	1.3

Given the wide variability of the projects wherein the writing, research, speaking, reading and observational skills were not uniformly stressed except in cases of a student's blatant deficiency, the faculty probably took these skills for granted. Nor is this surprising, for disciplinary-oriented instructors are rarely trained in the teaching of these skills in writing, speaking, and researching, though interested. Operationally, cognitive skills were high on the faculty agenda of instruction and they taught these well. Operationally, the other types of skills were lower on the agenda of instruction with less attention paid to them. This evaluator would encourage the project director and faculty of this course to include a professor whose main instructional expertise would be oral and written communication within the inquiry framework of this interdisciplinary course. In fine, this evaluator is persuaded that the faculty did acquire new knowledges, skills and sensitivities, that the faculty did create in theory and practice a coherent interdisciplinary course, that the faculty did teach effectively the students within the project method and the lecture course cognitive skills, and that because they were not uniformly emphasized, the faculty less effectively communicated across to the student group writing and research skills. Further, there is no doubt in the mind of this evaluator that the students were stimulated and enlivened to appreciate the intellectual issues of the course. A reading of the three sets of essay examinations written by the students demonstrated that appreciation, though the quality of the answers varied as expected. This writer believes that the faculty did achieve admirably almost all the goals set for them by the project's prospectus.

The Human Prospect course provided an opportunity for students to

fulfill their Core Curriculum requirement for their baccalaureate degrees. Of the 20 respondants to the Student Appraisal, some 15 (75%) of these students took it for Core Curriculum credit. They viewed this course as being very appropriate to the Core Curriculum requirements (SAI No. 3: $\bar{m}$ = 4.8) and very much more than adequate to meet the Core Curriculum requirement (SAI No. 4: $\bar{m}$ = 4.5). These students also viewed the course objectives to be very explicitly stated (SAI No. 1: $\bar{m}$ = 4.3). Additionally, students felt the course objectives to be more than moderately compatible with their personal needs (SAI No. 2: $\bar{m}$ = 3.8).

As experienced by the students, some other affective dimensions of the course have been explored. These are concerned with the degree of interest, challenge, motivation and incentive induced into the students through their tuition within the course.

This affective dimension greatly is influenced by the students' prior interest in the subject. In the case of this course, the students' prior interest in the subject matter was moderately high (SAI No. 59: $\bar{m}$ = 3.9). Hence such prior interest raises if not sharpens the students' motivation and sense of challenge and incentive. With such psychological predisposition, the students' moderately high challenge of the course to their knowledge (SAI No. 68: $\bar{m}$ = 3.1) are understandable. And so is the fact understandable that they found a moderately low number of unexplained core ideas, core concepts, basic facts, and/or basic relationships remained for them at the end of the course (SAI No. 48: $\bar{m}$ = 2.3).

Given this prior student interest in the course's subject matter, it is to the credit of the faculty to have capitalized on this valuable asset. Thus it is reasonably to find the following: (1) students indi-

cated they experienced moderately high emotional stimulation from the course (SAI No. 22: $\bar{m}$ = 3.9); (2) students had acquired through the course moderately high incentive to attend course-related lectures external to the course presentation (SAI No. 63: $\bar{m}$ = 3.7); (3) students had acquired through the course moderately high incentive to read in course-related fields (SAI No. 64: $\bar{m}$ = 3.6); (4) students gained through the course a moderately high incentive to register in another course related to the "Human Prospect" theme (SAI No. 65: $\bar{m}$ = 3.5). However, this team-taught interdisciplinary course had a far less powerful effect on the students in terms of rethinking their major (SAI No. 66: $\bar{m}$ = 2.2) and rethinking career plans (SAI No. 67: $\bar{m}$ = 2.5).

On the whole, the affective achievement of this course is remarkable for both faculty and student. In particular, the students' satisfaction with the over all course was moderately high (SAI No. 60: $\bar{m}$ = 4.0); and the students' satisfaction in achievement of personal goals within the course was moderately high (SAI No. 61: $\bar{m}$ = 3.7). Earlier the student's high satisfaction with their course project achievement was noted (SAI No. 62: $\bar{m}$ = 4.5). This evaluator is constrained to believe that this experimental course on "Technological Culture and the Human Prospect" achieved motivation, challenge, incentive, and interest through the inter-relations built by faculty with students. This achievement was a reasoned hope which was reasonably accomplished.

Other course characteristics:

There are several areas covered by this evaluation that exceed the specific goals and intentions for this course as outlined in the grant

proposal. An examination of these side effects will be useful in providing a better understanding of such a complex social system as a new course development process. Three areas will be noted here: (1) curriculum theme and the instructional components; (2) faculty characteristics; (3) effectiveness of time utilization.

The relevance of the course theme to the several instructional elements was tapped by the Student Appraisal. The student perceptions of these were: (1) students perceived a relatively high degree of relevance of lecture topics ot the course theme (SAI No. 13: $\bar{m} = 4.4$); (2) students perceived a relatively high degree of relevance of the student course project to the course theme (SAI No. 16: $\bar{m} = 4.3$); (3) students indicated a moderately high degree of appropriateness for the lecture format (SAI No. 8: $\bar{m} = 4.1$), the student project (SAI No. 11: $\bar{m} = 4.1$), the readings for the course (SAI No. 10: $\bar{m} = 3.9$), and group discussion (SAI No. 9: $\bar{m} = 3.8$); (4) students found a moderately high degree of relevance of the discussion groups to the course theme (SAI No. 15: $\bar{m} = 3.9$). Additionally, the students experienced the readings to be at a moderate level of difficulty (SAI No. 29: $\bar{m} = 2.8$). The students also asserted that through the essay examinations, that they prompted to a moderately high degree to think both analytically (SAI No. 52: $\bar{m} = 3.8$) and synthetically (SAI No. 53: $\bar{m} = 3.7$).

The students' collective experience with this interdisciplinary faculty formed the basis for the cogent joint descriptions of the teaching staff as a whole. See the following.

Generally, the students perceived that a moderately high amount of their learning came from the lectures (SAI No. 23: $\bar{m} = 4.2$). The

students experienced through their instructors a moderately high toleration for a wide range of student opinion (SAI No. 49: $\bar{m}$ = 4.1). The students experienced faculty fairness in the course as a whole to a moderately high degree (SAI No. 50: $\bar{m}$ = 3.9); and faculty fairness in grading essay examinations was considered to be moderate in degree (SAI No. 57: $\bar{m}$ = 3.5).

With reference to faculty availability for supplementary instruction and aid, the students found the faculty providing a moderately high degree of such service (SAI No. 51: $\bar{m}$ = 3.8). The students discerned a moderately high degree of clarity of speech for the several lectures heard (SAI No. 25: $\bar{m}$ = 3.8). And in the discussion groups led by the faculty, the students experienced a moderately wide degree of openness (SAI No. 37: $\bar{m}$ = 3.5).

It is good to report that a faculty tendency to encourage only a single discipline framework in lectures, discussions, and project advising ranged from a moderate level to a moderately low level (SAI No. 26: $\bar{m}$ - 2.9; and SAI No. 38: $\bar{m}$ = 2.6). Additionally, 14 (70%) out of 20 students noted low wastage of time during lectures (SAI No. 27: $\bar{m}$ = 2.0); and 15 (75%) out of 20 students noted low wastage of time during discussions (SAI No. 37: $\bar{m}$ = 2.3). Only in one area did the faculty-student relationship appear to suffer perceptibly, viz., a slightly below the moderate level of adequacy in faculty feedback to students on the results of their essay examinations (SAI No. 55: $\bar{m}$ = 2.8).

In sum, these students' collective evaluations of the interdisciplinary faculty are reasoned and positive. This evaluator is pleased with the sobriety of outlook exhibited by these students. And in terms of

the total response of the students to this faculty, this evaluator merits the faculty as a whole as being excellent and conscientious instructors for this new innovative course---a quality staff that has been quite effective as a team in human capital investment service.

NEH Faculty Seminar:

The NEH Faculty Seminar was that human capital investment strategy through which the new course was developed and through which the faculty learned from each other. And though some of the project effects were reported earlier, other aspects and side-effects of the Seminar will be reported here. These will provide a further basis for interpreting this complex process of human capital development. The aspects to be treated here are: (1) the Seminar's several components; (2) the participant faculty's goals; (3) the faculty's professional communications patterns; (4) the university's support services; (5) the project director's leadership of the project. See Chart No. 5 for the items from the Faculty Appraisal on these topics.

[Insert Chart No. 5 here.]

The faculty believed that the lecture/discussion formats were guided by some explicit cognitively oriented goal for each participant. The same was true for affectively oriented goals. However, the lecture/discussion format was not guided (nor designed) by explicit psychomotor oriented goals.

The faculty participants experienced immediate feedback from their

CHART NO. 5: FACULTY PRATICIPANTS' EVALUATION OF NEH FACULTY SEMINAR ELEMENTS

ITEM NUMBER	FACULTY APPRAISAL ITEMS	8 CASES		
		$\hat{m}$	$\bar{m}$	s.d.
18	Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some explicit cognitive oriented goals for each seminar participant.	4.0	3.6	1.6
19	Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some explicit affective oriented goal for each seminar participant.	3.3	3.1	1.1
20	Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some specific psychomotor skill for each seminar participant.	1.3	.8	.5
21	Generally, the lecture/discussion formats of the NEH Faculty Seminar provided immediate feedback to the lecturer/discussion leader as to whether his/her specific goal was achieved by the participants.	4.0	3.5	.9
22	For the most part, student critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.	2.5	2.1	1.0
23	For the most part, faculty participant critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.	4.8	4.3	.7
24	For the most part, non-seminar university faculty critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.	3.3	3.6	1.2
25	For the most part, extra-mural faculty critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.	1.8	1.6	.8
26	For the most part, unveristy administrator critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.	1.5	1.0	.5

CHART NO. 5: CONTINUED

ITEM NUMBER	FACULTY APPRAISAL ITEMS	8 CASES		
		$\hat{m}$	m	s.d.
27	On my own presentations, I received from my seminar colleagues helpful comment and critique of my presentation and other instructional skills.	4.5	3.9	1.1
28	Generally, the total time allocated and used in the lecture/discussion format of the NEH Faculty Seminar was adequate to meet the project's goals.	4.0	3.5	1.5
30	Generally, the lecture/discussion format of the NEH Faculty Seminar was appropriate to meet the project's goals.	3.3	3.8	1.6
36	Generally, the qualitative content of the assigned readings was appropriate to the subject themes announced for each NEH Faculty Seminar session.	5.0	4.4	.7
37	Generally, the length of the assigned readings was optimal, relative to the subject themes announced for each NEH Faculty Seminar session.	4.7	3.9	1.2
38	Generally, the purpose(s) of the assigned readings was (were) explicitly stated in advance of the announced date and time of the NEH Faculty Seminar lecture/discussion session.	3.7	2.9	1.2
56	Generally, participant absenteeism in the NEH Faculty Seminar sessions was very low.	5.0	4.9	.4
52	It is my impression that the NEH Faculty Seminar's Friday planning sessions were useful.	3.3	3.6	.7
53	It is my impression that the NEH Faculty Seminar's Friday planning sessions were optimal in length.	3.3	3.0	1.4
54	It is my impression that the NEH Faculty Seminar's Friday planning sessions were generally productive.	3.7	3.3	1.0
55	It is my belief that the NEH Faculty Seminar's Friday planning sessions were a necessary and constructive component for the project.	5.2	4.6	.5

colleagues on whether his/her specific goals were achieved. And within the Seminar, the participants experienced some student critique of ideas and critiques from non-univeristy faculty. The faculty experience little in critique or commentary from university administrators primarily because few attended the sessions. The same was true for extra-mural faculty.

Curricularly, the NEH Faculty Seminar's allotment of time within the lecutre/discussion format was experienced to be adequate and appropriate toward meeting the project's goals. Further, the faculty believed that their readings were qualitatively appropriate to the subject matter themes, that the length of the readings were optimal, and the faculty made explicit the purposes of the readings prior to the programmed sessions. Also, it is significant to note that the faculty believed it had received helpful comment and critique on their presentations, their ideas, and their instructional skills. The low absentee rate of the faculty participants in the NEH Faculty Seminar is important. In sum, it is the faculty participants' impression of the NEH Faculty Seminar sessions as being dominantly cognitive, upheld by qualitatively appropriate materials and methods of presentation, stimulated by immediately helpful feedback from colleagues, generally with all participants present. This description is apt, having attended several such sessions. Such qualitative sessions were useful but intended achievements.

Within the NEH Seminar schedule were the regular Friday planning sessions. These were described by the faculty participants as being useful, optimal in length, productive, and a necessary and constructive component of the project. The utility and appropriateness of this planning time, being the apparent consensus of the participating faculty, is nec-

essary during the regular semester when the course is being taught. Team-teaching requires the faculty to get together regularly for in-transit curricular re-design of segments and other course administration needs. This recommendation is strongly made here.

Another component of the NEH Faculty Seminar was an all-day workwhop, held on Saturday, May 14, 1977, at the end of the whole Phase One. The purposes of this workshop were to evaluate the whole experience, make final plans on the implementation of the course in Fall 1978, and to make such other policy decisions as were necessary for the administration of the course while it was being taught. Among those decisions were policies related to the examination and project evaluation system.

Items Nos. 57-65 on the Faculty Appraisal were devoted to assessing nine workshop characteristics, each characteristic being construed by the faculty member as a continuum of their experience. A five point scale (5 = high; 3 = moderate; 1 = low) was used. On the whole, the workshop was viewed most positively on all nine characteristics, viz., (1) appropriateness of workshop agenda; (2) effectiveness of all-day workshop format; (3) operational flexibility of workshop; (4) workshop productivity; (5)participant cordiality; (6) workshop's efficiency; (7) decisional decisiveness of workshop participants; (8) amount of collegial conduct of workshop business; (9) quality of the leadership by workshop/project director. See Chart No. 6 for details.

[Insert Chart No. 6 here.]

Within the NEH Faculty Seminar, the goals of the participants

CHART NO. 6: FACULTY PARTICIPANTS' EVALUATION OF NEH FACULTY SEMINAR WORKSHOP

ITEM NUMBER	FACULTY APPRAISAL ITEMS	8 CASES		
		$\hat{m}$	$\bar{m}$	s.d.
57	Appropriateness of workshop agenda.	5.0	5.0	--
58	Effectiveness of all-day workshop format.	5.0	4.8	.5
59	Operational flexibility of the workshop.	5.0	4.5	.5
60	Workshop productivity.	5.0	4.8	.5
61	Participant cordiality.	5.0	4.9	.4
62	Workshop's efficiency.	5.0	4.8	.5
63	Decisional decisiveness of workshop participants.	5.0	4.6	.5
64	Amount of collegial conduct of business.	5.0	4.8	.5
65	Quality of the leadership by workshop/ project director.	5.0	5.0	--

were tapped because the level of personal involvement and commitment is directly related to a person's derived satisfaction from his own goal fulfillment. Did the faculty participants in the Seminar fulfill their own goals within this project phase? Note the following for partial answers: (1) total time allocated and used met faculty participants' goals (FAI No. 29: $\hat{m}$ = 4.3 --- More than Moderately Descriptive); (2) the lecture/discussion format met the faculty participants' goals (FAI No. 31: $\hat{m}$ = 4.7 ---Most Descriptive); (3) the time lengths of the lecture segments were optimal for the lecturer's intents (FAI No. 32: $\hat{m}$ = 4.5 ---Most Descriptive); (4) the time lengths of the lecture segments were optimal for the participants' own needs and expectations (FAI No. 33: $\hat{m}$ = 4.0 ---More than Moderately Descriptive); (5) the discussion time was optimal for the lecturer's intent (FAI No. 34: $\hat{m}$ = 3.3 ---Moderately Descriptive); (6) the discussion time was optimal for the participants' own needs and expectations (FAI No. 35: $\hat{m}$ = 3.3 ---Moderately Descriptive). There is little doubt that the lecture phase of the Seminar was eminently successful in terms of the participants' goals. There appears to be less enthusiastic consensus about the discussion format in terms of the participants' goals. Perhaps the discussion segments were too short? Or perhaps, the discussion segments should have been detached from the lecture time. These are options that need exploration.

The faculty participants' reflections upon their own intra-Seminar relations appear to be positive and warm. FAI Nos. 39-47 rated statements are in the Most Descriptive category with medians of five.

The highest level of communication about the Seminar with other professionals were informal ones with departmental and disciplinary col-

leagues within the University(FAI No. 13: $\hat{m}$ = 5.0 ---Most Descriptive) and with disciplinary colleagues external to the Univesity (FAI No. 15: $\hat{m}$ = 4.0 ---More than Moderately Descriptive). Formal types of communication with colleagues in and out of the University were very low (FAI Nos. 12 and 14: $\hat{m}$ = 1.6 and $\hat{m}$ = 1.4 ---Least Descriptive). Likewise it is important to note that both formal and information communication about the project with university administrators was very low (FAI Nos. 16 and 17: $\hat{m}$ = 1.4 and $\hat{m}$ = 2.0 ---Least Descriptive). Perhaps this later reaction can be attributed to the low communicational levels engendered between "labor" and "management" that resulted from faculty unionization. Be that as it may, this evaluator believes that the relatively high hedonic tone of the participant faculty's intra-Seminar relations was a firm contribution to the success of this project in human capital development. This evaluator is confirmed in this belief through his own observations and experiences with the faculty as a group and individually. Too often, this aspect of project evaluation is neglected even though organizational research has confirmed the need for such assessment.

Part of the university's contribution to the project was in terms of physical facilities and support services. These were assessed through the Faculty Appraisal.

The NEH Faculty Seminar was held in a seminar-style room in McLaren Hall. Though unusally small for the project's purposes, the ambience of the room was quite pleasant. However the faculty's adequacy rating did not reflect its discomfort with too little space for eight faculty participants and many faculty and students who wished to visit some of the sessions. Using a calculated median as the appropriate measure, the faculty

rated the room's adequacy in relation to the group's needs as being highly adequate (FAI No. 48: $\hat{m} = 4.5$). And from the personal viewpoint of the several participant faculty member's own needs, the room's adequacy was rated to be high (FAI No. 49: $\hat{m} = 5.0$).

Of course, each project requires certain support services for it to function and flourish as planned. In this regard, the University's support services for both the group's and the several individual faculty participant's personal needs were rated to be relatively high (FAI No. 50: $\hat{m} = 4.7$; FAI No. 51: $\hat{m} = 4.7$). The overall level and quality of housing, care and feeding of this project was most acceptable. And though the ideal is never reached, certainly a little juggling of university space could have housed the project more advantageously. See Chart No. 7 for details.

[Insert Chart No. 7 here.]

In 21 items of the Faculty Appraisal, Dr. Carolyn M. Iltis' project leadership was evaluated by her colleagues. With the questionnaire being returned to this evaluator directly and the respondants being anonymous, the responses to these items were most reassuring. Dr. Iltis was the project originator; and her leadership as project director was confirmed by her own colleagues. Chart No. 8 details the areas of her competence that they merited. Out of a perfect score of 5, the overall mean score for all 21 items mean scores was 4.6, designating Dr. Iltis' general leadership as very high. There is little doubt in the mind of this evaluator that he would concur with the consensus of Dr. Iltis' colleagues.

CHART NO. 7: FACULTY EVALUATION OF
UNIVERSITY FACILITIES AND SUPPORT SERVICES

ITEM NUMBER	FACULTY APPRAISAL ITEMS	8 CASES		
		$\hat{m}$	$\bar{m}$	s.d.
48	For the most part, the physical facilities and environment for the sessions of the NEH Faculty Seminar were adequate to meet the needs of the seminar participants.	4.5	2.3	1.1
49	For the most part, the physical facilities and environment for the sessions of the NEH Faculty Seminar were adequate to meet my needs as a seminar participant.	5.0	4.1	1.5
50	For the most part, university support services for the NEH Faculty Seminar were adequate to meet the needs of the seminar participants.	4.7	3.9	1.3
51	For the most part, university support services for the NEH Faculty Seminar were adequate to meet my needs as a seminar participant.	4.7	3.8	1.1

She has proved to be a most able project director and leader of an educational innovation within a very traditionally oriented university.

[Insert Chart No. 8 here.]

Addendum on Essay Examination Grading:

There were three essay examinations given during the semester course on the Human Prospect. Each examination coincided with the time themes of past, present and future. As a method of instruction and examination, the students were given the examination questions about two weeks in advance of the date for the examination. However the students were not informed which questions would be used that day. The students were then given a choice of one of the three to write on the day of the test. Independently, the several examinations were graded by two faculty members who assigned numerical grades of 1 to 10. After, the two independent grades were "averaged" to get one letter grade for each examination that had been written.

Of course it is important for the teaching team who share the instruction that they should share the evaluating of the students. And this faculty attempted to do this in a reasonably way. But a review of the inter-rater reliabilities in Chart No. 9 provide an insight into a problem. In Chart No. 9, one finds inter-rater reliabilities (correlation coefficient: r) that range from .22 to a very respectable .91. Though such variability is inevitable for an untrained teaching team, it must not remain so. In all fairness to the students, an "averaging" of two grades that differ by more than one letter grade requires another team effort. This

CHART NO. 8: FACULTY PARTICIPANTS' EVALUATION
OF PROJECT DIRECTOR'S LEADERSHIP

ITEM NUMBER	FACULTY APPRAISAL ITEMS	8 CASES	
		$\bar{m}$	s.d.
66	conductor of business meetings	4.6	.8
67	organizer of project tasks and agenda	4.9	.4
68	resourcefulness	4.8	.4
69	provider of useful suggestions	4.6	.8
70	manager of details	5.0	--
71	consideration for people's views and feelings	4.6	.8
72	giver of clear directions	4.7	.8
73	helpfulness	4.7	.5
74	initiator of action	4.9	.4
75	supporter of innovative ideas	4.9	.4
76	sense of humor	4.6	.8
77	reasonableness	4.9	.4
78	project commitment	5.0	--
79	administrative skills	4.9	.4
80	tolerance	4.9	.4
81	intellectual leadership	4.9	.4
82	crystalizer of ideas and decisions	4.9	.4
83	creative problem-solver	4.7	.5
84	provider of systematic followup of decisions	4.9	.4
85	discussion leadership	4.6	.8

effort is for the teaching team to get into training sessions for learning to grade essay examinations in a systematic and objective manner. It will be noted that in the first examination, 6 out of 27 examinations (22.2%) had pairs of grades that differed by more than one letter grade; and in the second examination, 12 out of 24 (50%) examinations had the same maladies.

There is one immeidate stop-gap type measure that can be used until the teaching team gets its essay examination skills in order. That process is to assign a third reader to each of the examinations which differed by more than one letter grade. Then the two letter grades that were closest would be used for "averaging." Given this situation, this evaluator recommends that the teaching team procure the aid of a trainer to help them develop a team approach to grading essay examinations more objectively and systematically than before.

[Insert Chart No. 9 here.]

Summary:

This evaluation report followed the evaluation format that was planned for this project. Having designed the grant's evaluation plan in concert with the Project Director, the congruence of the plan to the actual execution of the evaluation is relatively faithful.

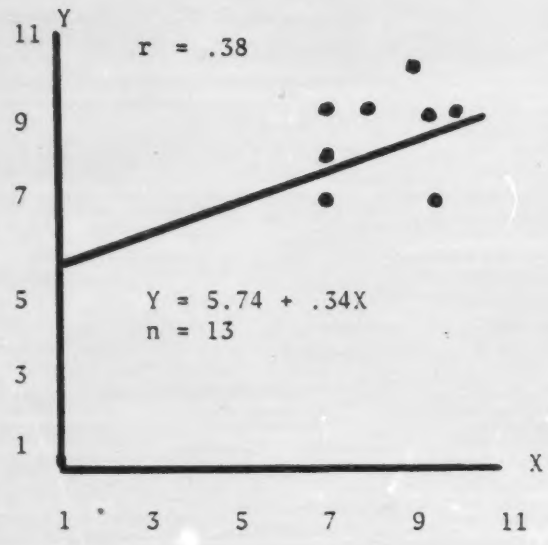
This writer is fully persuaded that this innovative pilot course in interdisciplinary education was a great success for the students and faculty of the University of San Francisco. And moreso, the University has a new course in the undergraduate curriculum. The human capital in-

vestment strategies worked well under the guidance of Dr. Carolyn M. Iltis. The faculty and the students profitted greatly from the opportunity.

The serial design for merging human capital investment strategies needs to be used more often. Recognizing the labor intensive character of education, the multiple interests and commitments of faculty, students and institution were served well through this design with significant multiplier effects entailed. The National Endowment for the Humanities and the University of San Francisco should be congratulated for funding this pilot grant because from it, a vital model instrument of change has been fashioned. This serial plan for merging faculty development and curriculum innovation into one vehicle is important for creative internal development of American higher education.

CHART NO. 9: INTER-RATER RELIABILITY OF FACULTY GRADING ESSAY EXAMINATIONS

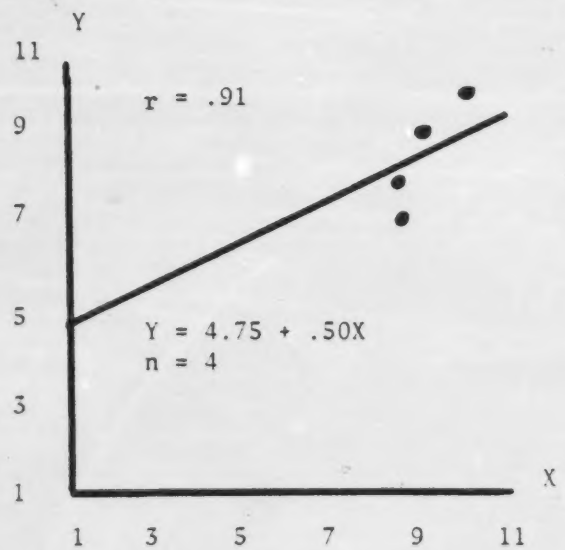
EXAMINATION NO. 1: Q. 1



X = Iltis Y = Mullen

STUDENTS	NUMERICAL GRADES	
	ILTIS	MULLEN
A	7	9
B	9	10
C	10	9
D	7	9
E	8	8
F	9.5	9
G	8	9
H	9	10
I	7	8
J	7	8
K	9.5	7
L	7	7
N	7	7

EXAMINATION NO. 1: Q. 2

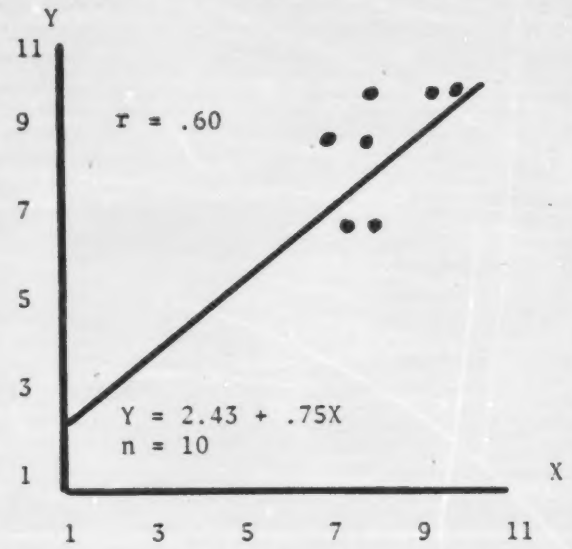


X = Mullen Y = Smith

STUDENTS	NUMERICAL GRADES	
	MULLEN	SMITH
A	9	9
B	10	10
C	8	8.5
D	7	8.5

CHART NO. 9: CONTINUED - A

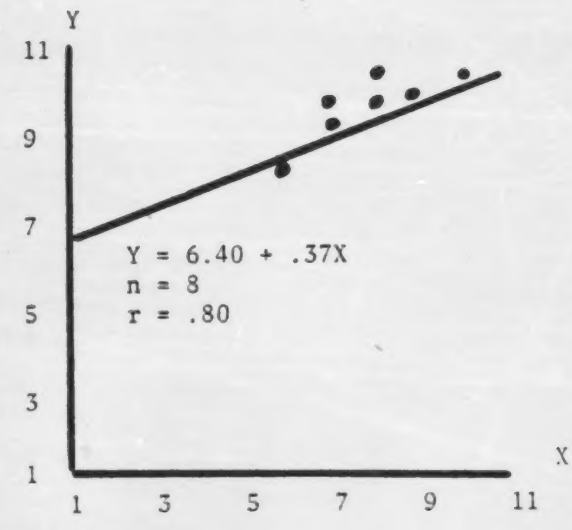
EXAMINATION NO. 1: Q. 3



X = Iltis Y = Smith

STUDENTS	NUMERICAL GRADES	
	ILTIS	SMITH
A	10	10
B	10	10
C	9	9
D	9.5	10
E	8	7
F	8	7
G	8	9
H	8	10
I	7.5	7
J	7	9

EXAMINATION NO. 2

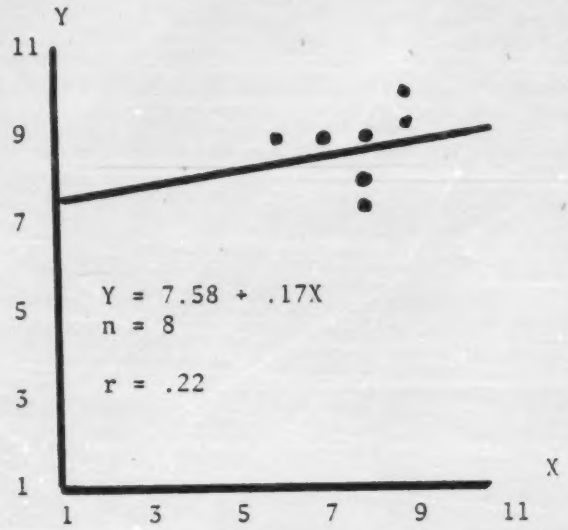


X = Hess Y = Albergotti

STUDENTS	NUMERICAL GRADES	
	HESS	ALBERGOTTI
A	10	10
B	10	10
C	9	9.5
D	8	9.5
E	7	9.5
F	7	9.5
G	8	10
H	6	8

CHART NO. 9: CONTINUED - B

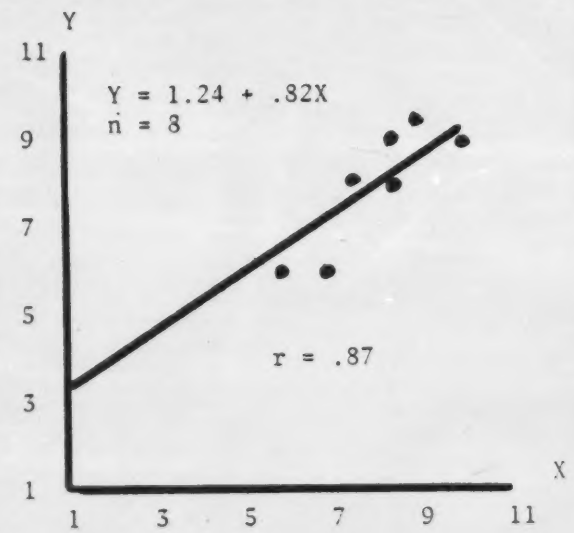
EXAMINATION NO. 2



X = Hess Y = Iltis

STUDENTS	NUMERICAL GRADES	
	HESS	ILTIS
A	9	9.5
B	7	9
C	8	8
D	9	10
E	7	9
F	8	7.5
G	8	9
H	6	9

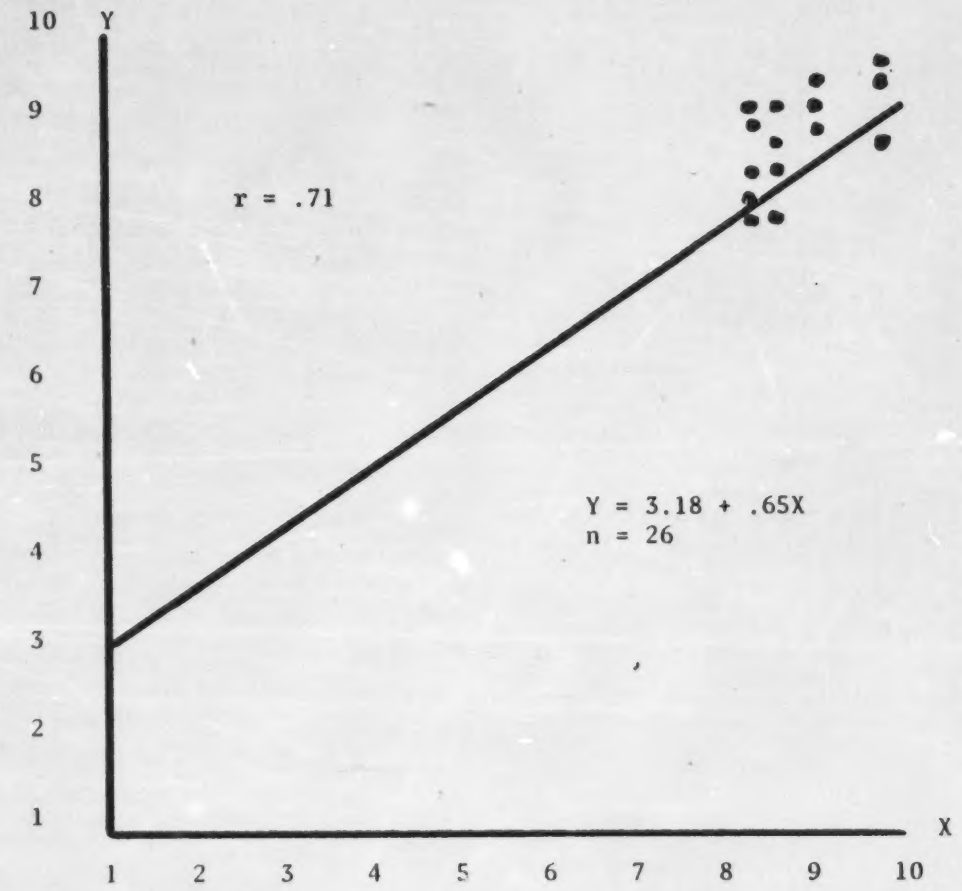
EXAMINATION NO. 2



X = Iltis Y = Albergotti

STUDENTS	NUMERICAL GRADES	
	ILTIS	ALBERGOTTI
A	9.5	9
B	8.5	8
C	6	6
D	8.5	9
E	7	6
F	10	9
G	7.5	8
H	7.5	8

CHART NO. 9: CONTINUED - C

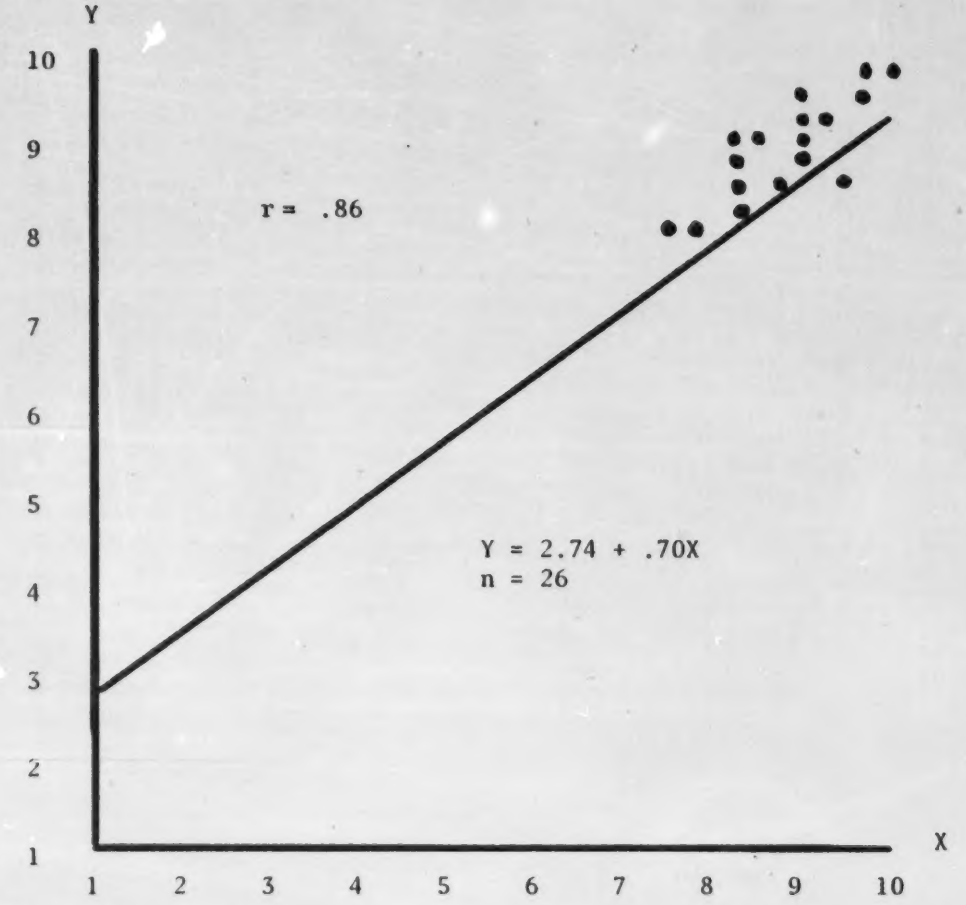


X = Kudlick

Y = Audigier

STUDENTS	NUMERICAL GRADES	
	KUDLICK	AUDIGIER
A	9	8.5
B	8.25	9
C	9	9.5
D	8.25	8.5
E	9.75	9.5
F	8.5	9.25
G	9	9
H	8.5	9.25
I	9	9
J	8.25	8.25
K	8.5	8.5
L	8.75	8
M	9.75	9.75
N	9.75	9.75
O	8.5	8.75
P	8.25	9.25
Q	9.75	9.75
R	8.5	8.75
S	9.75	8.75
T	8.25	8
U	9.75	9.75
V	8.5	9
W	9.75	9.25
X	9	9.25
Y	9.75	9.75
Z	8.5	8

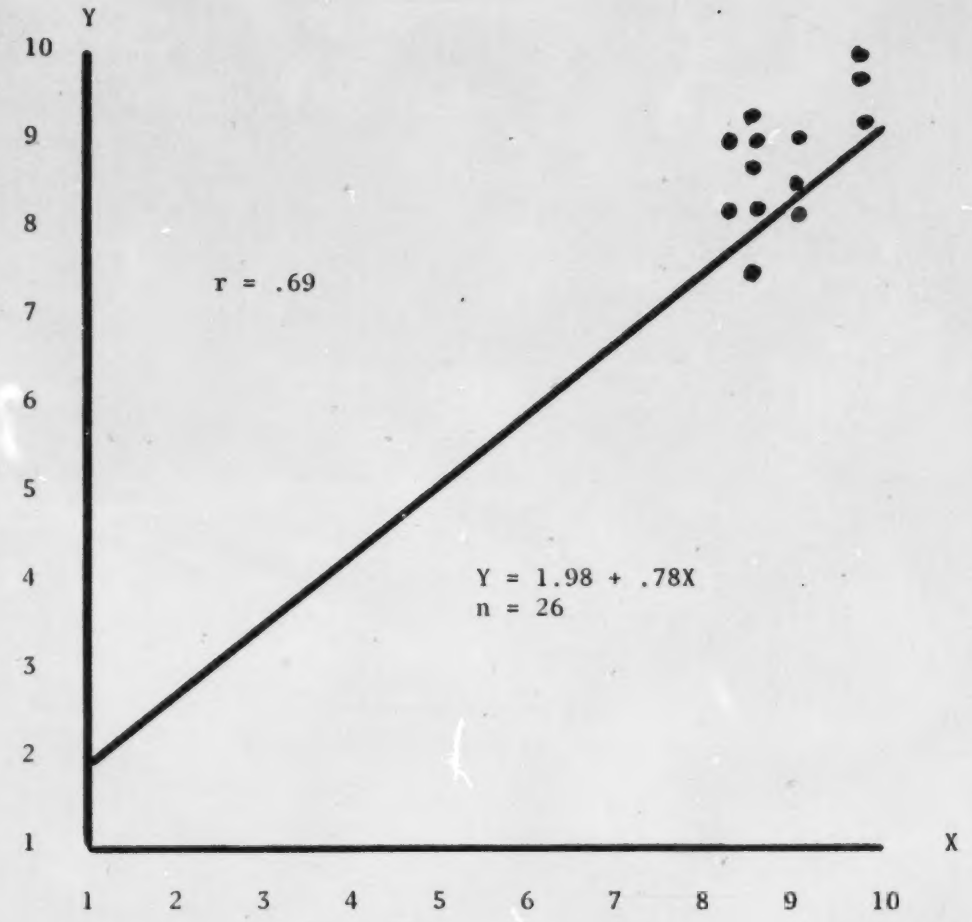
CHART NO. 9: CONTINUED - D



X = Buel Y = Audigier

STUDENTS	NUMERICAL GRADES	
	BUEL	AUDIGIER
A	8.25	8.5
B	8.25	9
C	9	9.5
D	9.5	8.5
E	9.75	9.5
F	9.25	9.25
G	8.5	9
H	9	9.25
I	9	9
J	8.25	8.25
K	8.75	8.5
L	7.75	8
M	9.75	9.75
N	10	9.75
O	9	8.75
P	9.25	9.25
Q	9.75	9.75
R	8.25	8.75
S	9.25	8.75
T	7.75	8
U	9.75	9.75
V	9	9
W	9.25	9.25
X	9.25	9.25
Y	9.75	9.75
Z	7.5	8

CHART NO. 9: CONTINUED - E



STUDENTS	NUMERICAL GRADES	
	KUDLICK	BUEL
A	9	8.25
B	8.25	8.25
C	9	9
D	8.25	9.5
E	9.75	9.75
F	8.5	9.25
G	9	8.5
H	8.5	9
I	9	9
J	8.25	8.25
K	8.5	8.75
L	8.75	7.75
M	9.75	9.75
N	9.75	10
O	8.5	9
P	8.25	9.25
Q	9.75	9.75
R	8.5	8.25
S	9.75	9.25
T	8.25	7.75
U	9.75	9.75
V	8.5	9
W	9.75	9.25
X	9	9.25
Y	9.75	9.75
Z	8.5	7.5

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APPENDIX

APPENDIX

I. Instrumentation: A Brief Note

A. Student Appraisal: Document
B. Faculty Appraisal: Document

II. Student's Project Contract Sheet: Document

III. The Course's Three Essay Examinations: Documents

A. Focus Present
B. Focus Past
C. Focus Future

INSTRUMENTATION: A BRIEF NOTE

Two questionnaires were developed for the evaluation of this innovative Human Prospect course. These were designed in terms of the original evaluation plan given the grant proposal. Copies of Student Appraisal and Faculty Appraisal are found in the Appendix. Both instruments are systematic measuring attempts to monitor those program variables that help determine whether the project's human capital investment strategies work.

The items for each instrument were designed by this evaluator and reviewed for "face" or content validity by the project director. Prior to item construction, the faculty were surveyed to make sure that the item categories were comprehensive enough from the faculty's viewpoint. No pilot testing of the instrument was done.

To determine the reliability and validity of both instruments, two statistical procedures were used. The first was the calculation of a Cronbach alpha coefficient for each instrument. This coefficient provides the psychometric insight that the domain of variables contained in each questionnaire was consistant internally. The alpha coefficient for the Student Appraisal was .91; and a .94 alpha coefficient was calculated for the Faculty Appraisal. Both coefficients indicate a high degree of internal consistancy in the domain of variables found in each instrument. This coefficient is a measure of instrumental reliability.

The second statistical procedure was an alpha factor analysis with a varimax rotation. In relation to the Student Appraisal instrument, two meaningful factors were extracted. These two factors accounted for

42.9% of the variance. The first factor was named "Cognitive Domain Factor" because the item variables in the factor reflect the cognitive and achievement dimensions that were sought for monitoring. The second factor was named "Affective Domain Factor" because the several item variables constituting this factor reflect the affective support dimensions that were sought for monitoring. This factor analytical result provides empirical evidence that the Student Appraisal instrument is valid. See Chart No. 10.

[Insert Chart No. 10 here.]

The Faculty Appraisal instrument was factor analyzed, using the alpha factor model. Also, it was orthogonally rotated by varimax procedure. The result of this analysis is that a single meaningful factor was extracted. This single factor accounted for 38.2% of the variance. This factor was named "Objective Program Elements" wherein the item variables included in this factor are "objective" perceptions of Phase One. Inasmuch as the whole of the Faculty Appraisal was concerned for evaluating Phase One components, this factor analytic result documents the validity of Faculty Appraisal which holistically was intended to survey Phase One components. See Chart No. 11.

[Insert Chart No. 11 here.]

From these statistical studies, the two questionnaires---Student Appraisal and Faculty Appraisal---are found to be both reliable and valid.

Hence, this evaluator believes he is correct in asserting that all elements in this evaluational report which are based upon these two instruments can be taken to be a reliable and valid reflection of the facts.

CHART NO. 10: ALPHA FACTOR ANALYSIS WITH VARIMAX ROTATION OF STUDENT APPRAISAL

ITEM NUMBER	STUDENT APPRAISAL ITEMS	FACTOR NO. 1	FACTOR NO. 2
5	The degree of thematic interconnection of lectures, readings, discussions, and project.	.41	
6	The degree of logical interconnection of lectures, readings, discussions, and project.	.57	
7	In general, the amount of logical clarity of the several lectures in the course.	.44	
14	The degree of relevancy of course theme to the student	.40	
15	The relevancy of course discussions to the course theme.		.62
17	The student's intellectual stimulation derived from the lectures.	.70	
18	The student's intellectual stimulation derived from the readings.		.45
19	The student's intellectual stimulation derived from the group's discussions.		.41
21	The student's intellectual stimulation derived from fellow students.		.49
22	The student's emotional stimulation prompted by this course.	.61	
23	The amount of learning the student derived from the lectures.	.88	
24	The amount of student improvement in listening skills.	.60	
27	The amount of wasted time students experienced during lectures.	.61	
29	The difficulty of course readings.	.41	-.68
30	The student's improvement in reading skills.	.64	

The second edition of SPSS was used. Communality estimates were initially set by SCM's and improved by an iteration process that converged the communality values after 16 iterations. See, Norman Nie, et al., SPSS: Statistical Package for the Social Sciences (2d ed.; New York: McGraw-Hill Book Company, 1975), pp. 480-481.

CHART NO. 10: CONTINUED - A

ITEM NUMBER	STUDENT APPRAISAL ITEMS	FACTOR NO. 1	FACTOR NO. 2
31	The amount of learning derived by student through the course project.	.40	
32	The student's improvement in observational skills.	.54	
33	The student's opportunity to learn and practice writing skills.	.41	
38	The tendency of the faculty to lead discussions within a single discipline framework.	.48	
40	The opportunity for the student to learn and practice analytical thinking skills.	.78	
41	Student improvement in analytical thinking skills.	.82	
42	The opportunity for the student to learn and practice synthetic thinking skills.	.71	
43	Student improvement in synthetic thinking skills.	.83	
44	The opportunity for the student to learn and practice evaluative or critical thinking skills.	.79	
45	Student improvement in evaluative or critical thinking skills.	.71	
48	The number of unexplained core ideas, core concepts, basic facts, and/or basic relationships that remained at end of course.	-.46	
49	Faculty tolerance for a wide range of student opinions		.56
50	Faculty fairness.		.78
51	The availability of faculty for supplementary aid and instruction during the semester.		.41
52	The degree to which course examinations prompted the student to think analytically.		.78
53	The degree to which course examinations prompted the student to think synthetically.		.76
54	The adequacy of explanation of criteria for course examination grading.		.61
55	The adequacy of faculty feedback to students on course examinations.		.40

CHART NO. 10: CONTINUED - B

ITEM NUMBER	STUDENT APPRAISAL ITEMS	FACTOR NO. 1	FACTOR NO. 2
56	The fairness of course grading procedures.		.83
57	The fairness of course examination grades received to date.		.92
60	Student satisfaction with overall course.	.65	
61	Student satisfaction with his/her achievement of personal goals for the course.	.85	
64	Prompted by the course, the amount of student incentive to read in course related fields.	.52	
65	Prompted by this course, the amount of student incentive to enroll in a course that is field-related to this "Human Prospect" course.	.56	
66	Prompted by this course, student incentive to re-think his/her college major.		-.62
	EIGENVALUES	20.24	8.87
	PERCENTAGE OF VARIANCE	29.8	13.1

CHART NO. 11: ALPHA FACTOR ANALYSIS WITH VARIMAX ROTATION OF FACULTY APPRAISAL

ITEM NUMBER	FACULTY APPRAISAL ITEMS	FACTOR NO. 1
1	The NEH Faculty Seminar theme "Technological Culture and the Human Prospect," is too broad for curricular affectiveness.	.47
13	Informally, I have shared my experiences from the NEH Faculty Seminar with my departmental or disciplinary colleagues who are within the university.	.95
15	Informally, I have shared my experiences from the NEH Faculty Seminar with disciplinary colleagues who are external to the university.	.73
17	Informally, I have shared my experiences in the NEH Faculty Seminar with university administrators.	.43
18	Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some explicity cognitive-oriented goal for each seminar participant.	.75
19	Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some explicity affective-oriented goal for each seminar participant.	.70
20	Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some specific psychomotor skill for each seminar participant.	.55
23	For the most part, faculty participant critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.	.54
34	Generally, the discussion time was optimal, given the lecturer's intent for that segment of the NEH Faculty Seminar session.	.55
35	Generally, the discussion time was optimal, given my own needs and expectations for that part of the NEH Faculty Seminar sessions.	.57
36	Generally, the qualitative content of the assigned readings was appropriate to the subject theme announced for each NEH Faculty Seminar session.	.60

The second edition of SPSS was used. Communality estimates were initially set by SCM's and improved by an iteration process that converged the communality values after 6 iterations. See, Norman Nie, et al., SPSS: Statistical Package for the Social Sciences (2d ed.; New York: McGraw-Hill Book Company, 1975), pp. 480-481.

CHART NO. 11: CONTINUED

ITEM NUMBER	FACULTY APPRAISAL ITEMS	FACTOR NO. 1
37	Generally, the length of the assigned readings was optimal, relative to the subject themes announced for each NEH Faculty Seminar session.	.84
48	For the most part, the physical facilities and environment for the sessions of the NEH Faculty Seminar were adequate to meet the needs of the seminar participants.	.73
49	For the most part, the physical facilities and environment for the sessions of the NEH Faculty Seminar were adequate to meet my needs as a seminar participant.	.86
50	For the most part, university support services for the NEH Faculty Seminar were adequate to meet the needs of the seminar participants.	.78
51	For the most part, university support services for the NEH Faculty Seminar were adequate to meet my needs as a seminar participant.	.88
	EIGENVALUES	24.1
	PERCENTAGE OF VARIANCE	38.2

THE UNIVERSITY OF SAN FRANCISCO

School of Education

TECHNOLOGICAL CULTURE AND THE HUMAN PROSPECT: AN UNDERGRADUATE INTERDISCIPLINARY COURSE

+

STUDENT APPRAISAL

+

by

James Steve Counelis

SAN FRANCISCO, CALIFORNIA 94117

December 3, 1977

DIRECTIONS:

"Technological Culture and the Human Prospect" was a new course designed and taught by a faculty team of the University of San Francisco. The initial costs for mounting it were borne by a grant from the National Endowment for the Humanities. And now that the course has been taught for the first time, student appraisal of it is needed.

This student appraisal form is intended to elicit student evaluative reactions to the course and its elements. This is done by this easy and convenient checking format. There is a five point continuum scale, ranging from a "High" of 5 points to a "Low" of 1 point.

Each questionnaire item is designed to be a continuous variable so that the five point continuum scale from "High" to "Low" can be matched and applied readily. The underlined term in each questionnaire item is the continuous variable to be rated by each student on the five point continuum scale. Thus each student will check the rating for each item on this appraisal form. At the end of this appraisal form, each student is invited to write his/her own additional remarks and comments.

Student cooperation in this appraisal is quite important because the quality of our university curriculum depends upon just such evaluations by the students as a group. The faculty for this experimental interdisciplinary course and I are indebted to you, our students, for your cooperation in making our university curriculum the best we can make it.

----James Steve Counelis,
Professor of Education
and Project Evaluator

- -

Student Name, Last Name First:_____ [1/01-26]

Major: _____[27-35]

Year: Freshman ____; Sophomore ___; Junior ____; Senior ____ [36]

Course taken for Core Curriculum Credit: Yes ____; No _____ [37]

Total number of units for course,
including lecture + project section(s): _____ [38-39]

Number of project sections in which student in enrolled: _____ [40]

Total number of units taken in Project Section(s): _____ [41-42]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
1. Explicitness of stated course objectives.	—	—	—	—	—	[44]
2. The compatability of course objectives with student needs.	—	—	—	—	—	[45]
3. The appropriateness of this course for "core curriculum" requirements.	—	—	—	—	—	[46]
4. The adequacy of this course for "core curriculum" requirements.	—	—	—	—	—	[47]
5. The degree of thematic interconnection of lectures, readings, discussions and project.	—	—	—	—	—	[48]
6. The degree of logical interconnection of lectures, readings, discussions, and project.	—	—	—	—	—	[49]
7. In general, the amount of logical clarity of the several lectures in the course.	—	—	—	—	—	[50]
8. The appropriateness of the lecture format for this course.	—	—	—	—	—	[51]
9. The appropriateness of groups discussions for this course.	—	—	—	—	—	[52]
10. The appropriateness of the readings for this course.	—	—	—	—	—	[53]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
11. The appropriateness of the student project for this course	—	—	—	—	—	[54]
12. The appropriateness of the time dimension (past, present, future) to the course theme	—	—	—	—	—	[55]
13. The relevancy of lecture topics to the course's theme.	—	—	—	—	—	[56]
14. The degree of relevancy of the course theme to the student.	—	—	—	—	—	[57]
15. The relevancy of course discussions to the course theme.	—	—	—	—	—	[58]
16. The relevancy of the student's project topic to the course theme.	—	—	—	—	—	[59]
17. The student's intellectual stimulation derived from the lectures.	—	—	—	—	—	[60]
18. The student's intellectual stimulation derived from the readings.	—	—	—	—	—	[61]
19. The student's intellectual stimulation derived from the group discussions.	—	—	—	—	—	[62]
20. The student's intellectual stimulation derived from the project.	—	—	—	—	—	[63]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
21. The student's intellectual stimulation derived from fellow students.	—	—	—	—	—	[64]
22. The student's emotional stimulation prompted by this course.	—	—	—	—	—	[65]
23. The amount of learning the student derived from the lectures.	—	—	—	—	—	[66]
24. The amount of student improvement in listening skills.	—	—	—	—	—	[67]
25. The general clarity of speech exhibited by the several lecturers in the course.	—	—	—	—	—	[68]
26. The lecturers' tendency to place their topics solely within the framework of a single discipline.	—	—	—	—	—	[69]
27. The amount of wasted time students experienced during lectures.	—	—	—	—	—	[70]
28. The amount of learning student derived through course readings.	—	—	—	—	—	[71]
29. The difficulty of the course readings.	—	—	—	—	—	[72]
30. The student's improvement in reading skills.	—	—	—	—	—	[73]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
31. The amount of learning derived by student through the course project.	—	—	—	—	—	[74]
32. The student's improvement in observational skills.	—	—	—	—	—	[75]
33. The student's opportunity to learn and practice writing skills.	—	—	—	—	—	[2/05]
34. The student's improvement in writing skills.	—	—	—	—	—	[06]
35. The tendency of the student's project advisor to encourage topics within a single discipline framework.	—	—	—	—	—	[07]
36. The amount of learning student derived through the discussion group.	—	—	—	—	—	[08]
37. Student experience in the amount of openness of the discussion groups.	—	—	—	—	—	[09]
38. The tendency of the faculty to lead discussions within a single discipline framework.	—	—	—	—	—	[10]
39. The amount of wasted time that student experienced in discussion group.	—	—	—	—	—	[11]
40. The opportunity for the student to learn and practice analytical thinking skills.	—	—	—	—	—	[12]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
41. Student improvement in analytical thinking skills.	—	—	—	—	—	[13]
42. The opportunity for the student to learn and practice synthetic thinking skills.	—	—	—	—	—	[14]
43. Student improvement in synthetic thinking skills.	—	—	—	—	—	[15]
44. The opportunity for the student to learn and practice evaluative or critical thinking skills.	—	—	—	—	—	[16]
45. Student improvement in evaluative or critical thinking skills.	—	—	—	—	—	[17]
46. The opportunity for the student to learn and practice speaking skills.	—	—	—	—	—	[18]
47. Student improvement in speaking skills.	—	—	—	—	—	[19]
48. The number of unexplained core ideas, core concepts, basic facts, and/or basic relationships that remained at end of course.	—	—	—	—	—	[20]
49. Faculty tolerance for a wide range of student opinions.	—	—	—	—	—	[21]
50. Faculty fairness.	—	—	—	—	—	[22]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
51. The availability of faculty for supplementary aid and instruction during the semester.	—	—	—	—	—	[23]
52. The degree to which course examinations prompted the student to think analytically.	—	—	—	—	—	[24]
53. The degree to which course examinations prompted the student to think synthetically.	—	—	—	—	—	[25]
54. The adequacy of explanation of criteria for course examination grading.	—	—	—	—	—	[26]
55. The adequacy of faculty feedback to students on course examinations.	—	—	—	—	—	[27]
56. The fairness of course grading procedures.	—	—	—	—	—	[28]
57. The fairness of course examination grades received to date.	—	—	—	—	—	[29]
58. If received, the fairness of grade for course project.	—	—	—	—	—	[30]
59. Amount of student interest in course's theme prior to taking this course.	—	—	—	—	—	[31]
60. Student satisfaction with the overall course.	—	—	—	—	—	[32]

CONTINUOUS VARIABLE ITEMS	5 HIGH	4	3 MODERATE	2	1 LOW	
61. Student satisfaction with his/her achievement of personal goals for the course.	—	—	—	—	—	[33]
62. Student satisfaction with his/her achievement in terms of course project.	—	—	—	—	—	[34]
63. Student incentive to attend lectures external to this course but related to the course's theme or subject matter.	—	—	—	—	—	[35]
64. Prompted by the course, the amount of student incentive to read in course related fields.	—	—	—	—	—	[36]
65. Prompted by the course, the amount of student incentive to enrol in a course that is field-related to this "Human Prospects" course.	—	—	—	—	—	[37]
66. Prompted by this course, student incentive to rethink his/her college major.	—	—	—	—	—	[38]
67. Prompted by this course, student incentive to rethink his/her career plans.	—	—	—	—	—	[39]
68. The course's challenge to the student's own knowledge.	—	—	—	—	—	[40]
69. The course's challenge to the student's own value system.	—	—	—	—	—	[41]

Each student is invited to write any additional remarks or comments they wish. All such contributions are helpful for course improvement as well as informing us of the merits of the course.

REMARKS OR COMMENTS ON THE LECTURE SEGMENT:

REMARKS OR COMMENTS ON THE PROJECT SECTIONS:

ANY OTHER REMARKS OR COMMENTS:

THE UNIVERSITY OF SAN FRANCISCO
School of Education

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NEH FACULTY SEMINAR APPRAISAL

+

As part of a total project evaluation, this questionnaire was designed for the faculty participants in the NEH Faculty Seminar which was conducted on the campus of the University of San Francisco. Operating in the Spring of 1977, this seminar developed the design for an undergraduate interdisciplinary course, titled, "Technological Culture and the Human Prospect." This attitudinal instrument attempts to assay the progress of the project through its first phase, the program planning and course development phase. With this course intending to be interdisciplinary in the best and broadest sense, this first phase was a learning opportunity for the whole instructional team. There will be three parts to this instrument with each section having its own set of directions.

---James Steve Counelis,
Professor of Education
and Project Evaluator

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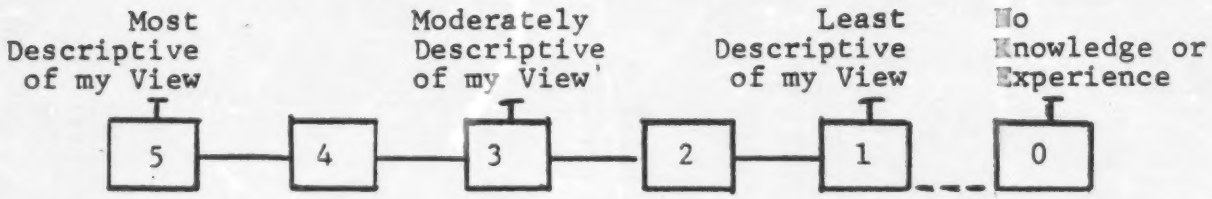
SAN FRANCISCO, CALIFORNIA 94117
September 26, 1977

PART ONE

Directions:

In this first part of the questionnaire, the faculty respondants will find a set of statements. Each statement refers to some element of the first phase of this project. Each respondant is requested to rank each statement.

The basis for ranking these statements is the degree to which each statement corresponds to the faculty respondant's own belief, observation, or experience on the matter. Below is an arabic numbered schematic. In the blank that precedes each statement, the respondant is requested to write in the arabic number which corresponds to his view of the statement under consideration.



_____ 1. The NEH Faculty Seminar theme, "Technological Culture and the Human Prospect," is too broad for curricular effectiveness.

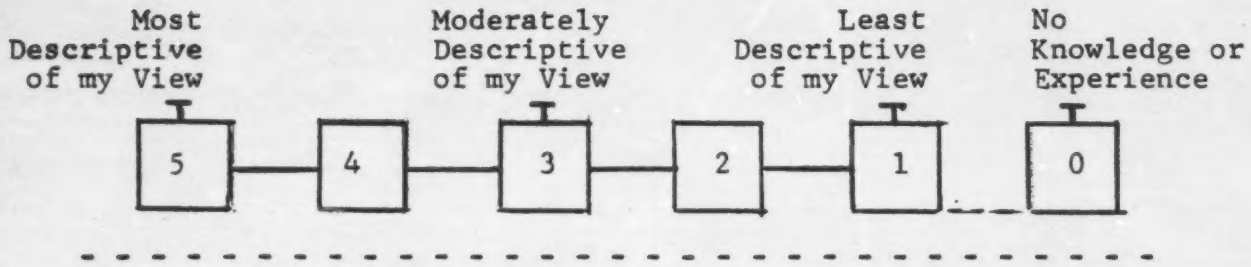
_____ 2. The NEH Faculty Seminar theme, "Technological Culture and the Human Prospect," is too broad for curricular efficiency.

_____ 3. Through participation in the NEH Faculty Seminar, I have learned new principles, new concepts and/or new facts.

_____ 4. Through participation in the NEH Faculty Seminar, I have experienced new perceptions.

_____ 5. Through participation in the NEH Faculty Seminar, I have acquired new appreciations and sensitivities.

_____ 6. Through participation in the NEH Faculty Seminar, I have discovered and understood new values.



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_____ 7. Through participation in the NEH Faculty Seminar, I have acquired at least one new psychomotor skill.

_____ 8. My experiences in the NEH Faculty Seminars have begun to affect some of my personal values.

_____ 9. My experiences in the NEH Faculty Seminar have begun to affect some of my own disciplinary or academic orientations.

_____ 10. My experiences in the NEH Faculty Seminar will probably affect the content and/or organization of my own disciplinary courses.

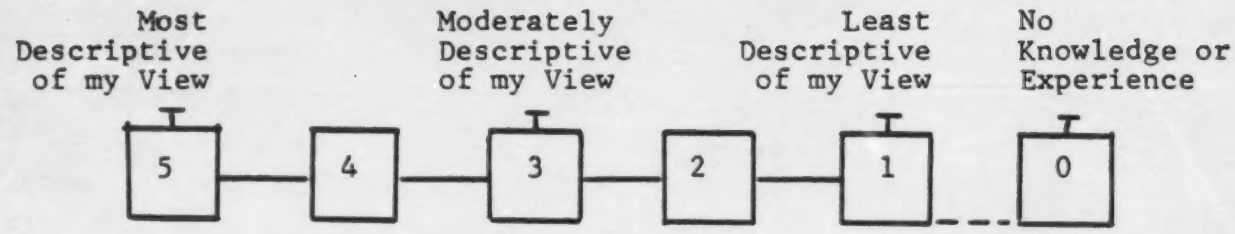
_____ 11. My experiences in the NEH Faculty Seminar will probably affect my style of instruction.

_____ 12. Formally, I have shared my experiences from the NEH Faculty Seminar with my departmental or disciplinary colleagues who are within the university.

_____ 13. Informally, I have shared my experiences from the NEH Faculty Seminar with my departmental or disciplinary colleagues who are within the university.

_____ 14. Formally, I have shared my experiences from the NEH Faculty Seminar with disciplinary colleagues who are external to the university.

_____ 15. Informally, I have shared my experiences from the NEH Faculty Seminar with disciplinary colleagues who are external to the university.



____ 16. Formally I have shared my experiences in the NEH Faculty Seminar with university administrators.

____ 17. Informally, I have shared my experiences in the NEH Faculty Seminar with university administrators.

____ 18. Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some explicit cognitive-oriented goal for each seminar participant.

____ 19. Generally, the lecture/discussion formats of the NEH Faculty seminar were guided toward some explicit affective-oriented goal for each seminar participant.

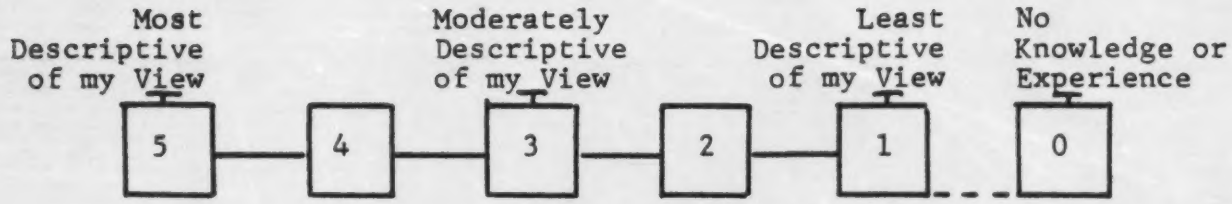
____ 20. Generally, the lecture/discussion formats of the NEH Faculty Seminar were guided toward some specific psychomotor skill for each seminar participant.

____ 21. Generally, the lecture/discussion formats of the NEH Faculty Seminar provided immediate feedback to the lecturer/discussion leader as to whether his/her specific goal was achieved by the participants.

____ 22. For the most part, student critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.

____ 23. For the most part, faculty participant critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.

____ 24. For the most part, non-seminar university faculty critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.



_____ 25. For the most part, extra-mural faculty critique of ideas in specific lecture/discussions sessions was available in the NEH Faculty Seminar.

_____ 26. For the most part, university administrator critique of ideas in specific lecture/discussion sessions was available in the NEH Faculty Seminar.

_____ 27. On my own presentations, I received from my seminar colleagues helpful comment and critique of my presentation and other instructional skills.

_____ 28. Generally, the total time allocated and used in the lecture/discussion format of the NEH Faculty Seminar was adequate to meet the project's goals.

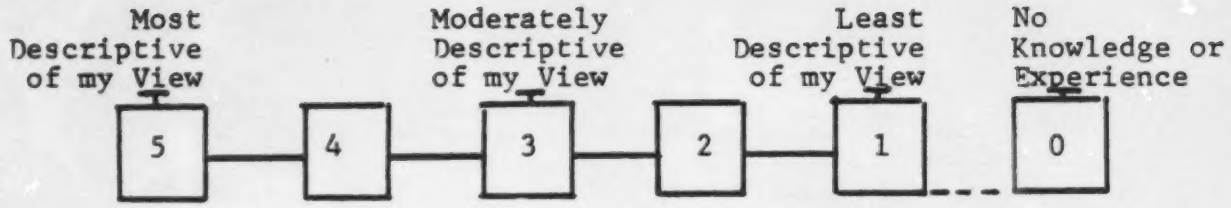
_____ 29. Generally, the total time allocated and used in the lecture/discussion format of the NEH Faculty Seminar was adequate to meet my own goals for the project.

_____ 30. Generally, the lecture/discussion format of the NEH Seminar was appropriate to meet the project's goals.

_____ 31. Generally, the lecture/disucssion format of the NEH Seminar was appropriate to meet my own goals for the project.

_____ 32. Generally, the time length of the lecture segments were optimal, given the lecturer's intent for that part of the NEH Faculty Seminar session.

_____ 33. Generally, the time length of the lecture segments were optimal, given my own needs and expectations for that part of the NEH Seminar session.



_____ 34. Generally, the discussion time was optimal, given the lecturer's intent for that segment of the NEH Faculty Seminar session.

_____ 35. Generally, the discussion time was optimal, given my own needs and expectations for that part of the NEH Faculty Seminar session.

_____ 36. Generally, the qualitative content of the assigned readings was appropriate to the subject themes announced for each NEH Faculty Seminar session.

_____ 37. Generally, the length of the assigned readings was optimal, relative to the subject themes announced for each NEH Faculty Seminar session.

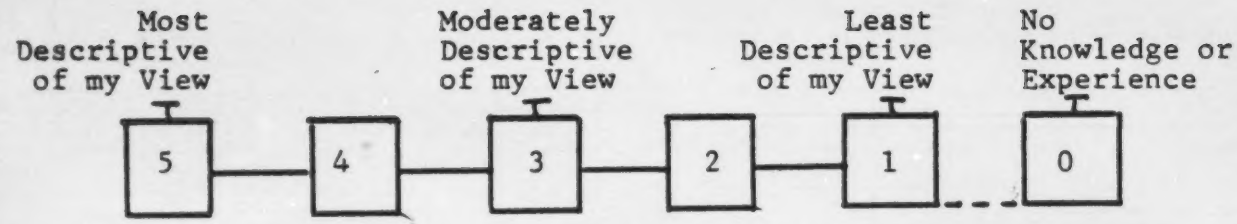
_____ 38. Generally, the purpose(s) of the assigned readings was (were) explicitly stated in advance of the announced date and time of the NEH Faculty Seminar lecture/discussion session.

_____ 39. On the whole, the NEH Faculty Seminar participants exhibited positive involvement in the direction of the total project.

_____ 40. On the whole, interpersonal cooperation and voluntarism characterized the behavior of the NEH Faculty participants.

_____ 41. On the whole, healthy and warm interpersonal relations pervaded the activities of the NEH Faculty Seminar participants.

_____ 42. On the whole, the relations among the several NEH Faculty Seminar participants has grown more cordial. accepting and trusting.



____ 43. At various times, each NEH Faculty Seminar participant has exhibited initiative during the project's planning and development operations.

____ 44. On the whole, the NEH Faculty Seminar participants behaved responsibly in their tasks, in their relations among themselves, and in their concern for the ethical impact of their program upon future undergraduate students.

____ 45. On the whole, overt eristic behavior among the NEH Faculty Seminar participants has been negligible.

____ 46. On the whole, the NEH Faculty Seminar participants viewed their programmatic problems and issues in realistic, fairly objective, and tolerant terms.

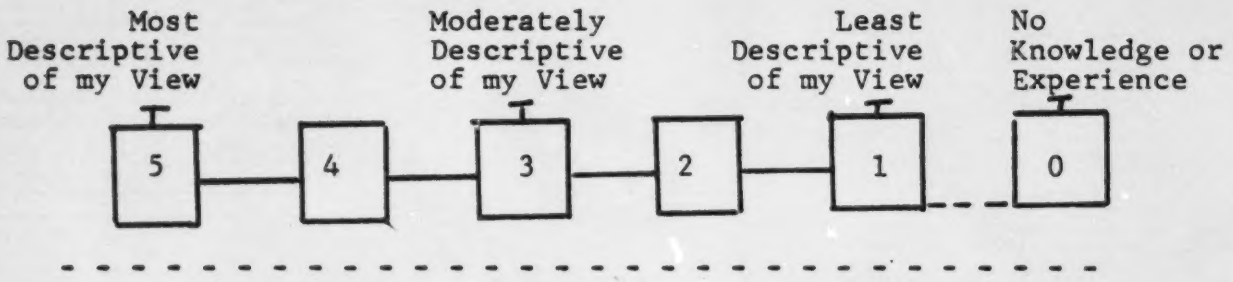
____ 47. During group decision-making, the NEH Faculty Seminar participants generally exhibited tolerance and a spirit of compromise.

____ 48. For the most part, the physical facilities and environment for the sessions of the NEH Faculty Seminar were adequate to meet the needs of the seminar participants.

____ 49. For the most part, the physical facilities and environment for the sessions of the NEH Faculty Seminar were adequate to meet my needs as a seminar participant.

____ 50. For the most part university support services for the NEH Faculty Seminar were adequate to meet the needs of the seminar participants.

____ 51. For the most part, university support services for the NEH Faculty Seminar were adequate to meet my needs as a seminar participant.



____ 52. It is my impression that the NEH Faculty Seminar's Friday planning sessions were useful.

____ 53. It is my impression that the NEH Faculty Seminar's Friday planning sessions were optimal in length.

____ 54. It is my impression that the NEH Faculty Seminar's Friday planning sessions were generally productive.

____ 55. It is my belief that the NEH Faculty Seminar's Friday planning sessions were a necessary and constructive component for the project.

____ 56. Generally, participant absenteeism in the NEH Faculty Seminar sessions was very low.

PART TWO

Directions:

The following items refer only to the all-day NEH Faculty Seminar Workshop, held on Saturday, May 14, 1977. The several characteristics of this workshop are viewed as an experienced continuum, ranging from high to low. Please rank each characteristic of thw workshop in terms of your own perceptions and experience. Place an "X" in the appropriate blank.

WORKSHOP CHARACTERISTICS	5 HIGH	4	3 MODERATE	2	1 LOW
57. Appropriateness of workshop agenda	___	___	___	___	___
58. Effectiveness of all-day workshop format	___	___	___	___	___
59. Operational flexibility of the workshop	___	___	___	___	___
60. Workshop productivity	___	___	___	___	___
61. Participant cordiality	___	___	___	___	___
62. Workshop's efficiency	___	___	___	___	___
63. Decisional decisiveness of workshop participants	___	___	___	___	___
64. Amount of collegial conduct of workshop business	___	___	___	___	___
65. Quality of the leadership by workshop/project director	___	___	___	___	___

PART THREE

Directions:

This third part of the questionnaire is to provide evaluational feedback to the project director in terms of her actual leadership performance during this first phase of the project. Please write in your letter appraisal in the blanks which precede each leadership item below.

A. Excellent
B. Above Average
C. Average
D. Below Average
E. Poor
F. No Knowledge or Experience to make Judgment

+

_____ 66. conductor of business meetings;
_____ 67. organizer of project tasks and agenda;
_____ 68. resourcefulness;
_____ 69. provider of useful suggestions;
_____ 70. manager of details;
_____ 71. consideration for people's views and feelings;
_____ 72. giver of clear directions;
_____ 73. helpfulness;
_____ 74. initiator of action;
_____ 75. supporter of innovative ideas;
_____ 76. sense of humor;
_____ 77. reasonableness;
_____ 78. project commitment;
_____ 79. administrative skills;
_____ 80. tolerance;
_____ 81. intellectual leadership;
_____ 82. crystalizer of ideas and decisions;
_____ 83. creative problem-solver;
_____ 84. provider of systematic follow-up to decisions;
_____ 85. discussion leadership.

The University of San Francisco School of Education

STUDENT'S PROJECT CONTRACT SHEET

Code:

Last Name Initials

Departmental Major

Course Name & Number of Units:

Project Title:

Project Description: Topic Area, Form, Method of Achievement, and Purpose. (Use reverse side of sheet.)

Project's Final Evaluation Comments:

List explicit cognitive, affective and/or psychomotor learnings to be derived specifically through the project:

Date:

Project Letter Grade:

Faculty Signature:

Student Signature:

Faculty Signature:

James Steve Counelis

9/77

The Human Prospect

Focus Present

One of the following questions will be selected for the examination on Friday October 7, 11:10-12:25. You will be expected to write an essay on the question using specific information drawn from the course readings, lectures, and discussions. The questions are unifying and general in scope but you will be expected to choose detailed supporting evidence in constructing your answers and to relate ideas presented in the section of the course on The Present.

1. Both cultural and biological factors have an influence on human characteristics. In what specific ways (i.e., psychological, physiological, philosophical) do you consider yourself a product of modern post-industrial society? In what specific ways do you consider yourself to have been unchanged by modern post-industrial society?

2. Consider the images and concepts with which science, technology, and art describe reality. (Examples: atom, continuum; part, whole; time, space, motion; order, chaos, chance; progress, happiness; participation, alienation, violence.) How do these images control individuals, as well as sections of our culture? How do they help to influence or create our experience of the world?

3. "Science and technology have influenced art and architectural styles in varied and beautiful ways, increased literacy, knowledge, and information for millions of people, and raised living standards and efficiency in many areas of the world." Illustrate and critically evaluate this statement.

CI/dls

The Human Prospect

Focus Past

One of the following questions will be selected for the examination on Friday, November 4, 11:10-12:25. You will be expected to write an essay on the question using specific information drawn from the course readings, lectures, and discussions. The questions are unifying and general in scope, but you will be expected to choose detailed supporting evidence in constructing your answer and to relate ideas presented in the section of the course on The Past.

1. The development of our present environmental situation is the result of many different influences (cultural -- i.e., religious, technological, linguistic, perceptual -- and biological). Give a brief accounting of the more important of these influences as they emerge from our study of the past, stating why you believe them to be important. Analyze the ways in which they may have directed and augmented each other.

2. In what specific ways has the perception of nature changed for the ordinary beholder, the artist, and other intellectuals since the scientific revolution? Comment upon the significance of this change.

3. Descartes' view that everything taking place inside the body of an animal or human is as mechanical as the things that happen inside a watch is an example of the mechanistic world-view. Analyze some of the ways it has affected Western Civilization during the past three hundred years.

The Human Prospect

Focus Future

On the next exam, you will be asked to answer one of the following questions. You will be expected to write an essay on the question using specific information drawn from the course readings, lectures, and discussions.

Many of the problems pointed out in the lectures are beginning to be dealt with slowly but positively, as befits an evolutionary approach to making changes in existing, long-established procedures. The questions below are intended to provide you with an opportunity to analyze and assess the value of the positive steps being taken or proposed to assure man's future in a humanized world.

1. Describe examples of works of art by which artists provide us with insights into our culture and behavior patterns. Analyze and assess the value of the ways in which we as a society do or could incorporate the insights of artists and other non-technologists into our decision-making processes, in order to help us achieve a balanced, coherent, humanitarian world.

2. Describe the ways in which the living and non-living components of the earth's ecosystem are interconnected, and show how these inter-relationships are encompassed in the philosophy of holism. Analyze and assess the value of the ways in which the philosophy of holism might guide technological advances towards maintenance of an ecological balance.

3. Describe what is meant by the concept of an ethic of common destiny. Analyze and assess the value of the ways in which this concept is related to and can be of use in dealing with the problems of evaluating side effects of new technologies, and the problems of ensuring that social and ecological considerations are not overshadowed by economic considerations in our decision-making processes.